LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A method of informing a receiver connected to one or more broadcast networks of a content targeting opportunity and in response, the receiver selecting and displaying a version of content from a plurality of versions of content, the method comprising the steps of:

receiving and decrypting characteristics of a viewer, ~~a selection of~~ the content, and viewing opportunities;

identifying physically accessible versions of the content the receiver is permitted to access;

performing an opportunity matching process to determine which of the accessible and permitted versions of ~~the~~ content best match the viewer, viewing opportunity and ~~selection of~~ content characteristics and records of prior content viewing;

displaying the determined version of content for viewing when the content targeting opportunity is received;

recording results of the displayed version of content; and

reporting the results of the version of content displayed for viewing to a reporting facility.

2. (currently amended) A method as defined in claim 1, further comprising the steps of:

performing a content matching process to determine which of the accessible and permitted versions of ~~the~~ content best match the viewer, viewing opportunity and ~~selection of~~ content characteristics and records of prior content viewing;

determining if a permission is available to use [[a]] storage accessible to the receiver, the storage having characteristics suitable for real-time playback with predictable content access latency characteristics;

deleting stored content that is less suitable than the determined version of content if sufficient ~~the~~ storage space is not available; and

storing the determined version of content on the storage.

3. (previously presented) The method of claim 1, wherein the content targeting opportunity is provided in response to an invocation of function or group of one or more functions on the receiver.

4. (previously presented) The method of claim 1, wherein a type of the version of content is determined in accordance with the characteristics of the viewing opportunity.

5. (currently amended) The method of claim 1, wherein the characteristics of the viewing opportunity and ~~selection of~~ content cause the opportunity matching process to determine the version of content in accordance with timing and the version of content determined for prior content targeting opportunities.

6. (currently amended) The method of claim 1, wherein the characteristics of the viewing opportunity and ~~selection of~~ content cause the opportunity matching process not to determine any version of content based on timing and content determined for prior content targeting opportunities.

7. (previously presented) The method of claim 2, wherein the opportunity matching process and the content matching process are performed within one or more components of the receiver.

8. (previously presented) The method of claim 7, wherein the viewer characteristics are stored in whole or in part within one or more components of the receiver or one or more devices on the network.

9. (currently amended) The method of claim 8, wherein the steps of storing of the characteristics, performing the opportunity matching process and/or the content matching process, recording of the viewing results, and reporting of the viewing results are performed and managed on one or more ~~of the~~ facilities selected from

a smart card,

a security module including software and interfaces to the receiver and a smart card,

an analog or digital television conditional access system including a smart card, a security module and other hardware within the system,

an electronic commerce system including a smart card, a security module and other hardware within the system,

a smart card including an operating system that allows multiple independent applications,

one or more grant/deny type servers accessible on a network,

one or more ticket server systems accessible on a network, and

an interactive application system.

10. (previously presented) The method of claim 9, wherein the characteristics are encrypted prior to transmission and decrypted after reception.

11. (previously presented) The method of claim 10 wherein the encryption and decryption are performed on any of the facilities.

12. (currently amended) The method of claim 2, wherein the ~~selection of~~ content, viewing opportunity and viewer characteristics comprise descriptors, the descriptors include a plurality of variable and extensible characteristics.

13. (currently amended) The method of claim 2, wherein all or a portion of algorithms of the opportunity matching processes and content matching processes for matching of the ~~selection of~~ content, viewer and viewing opportunity characteristics, are transmitted as one of the viewing opportunity or ~~selection of~~ content characteristics.

14. (currently amended) The method of claim [[19]]9, wherein the viewer characteristics are independently available on the facilities, the viewer characteristics being selected from one of

a postal code,

a telephone number,

access permissions including digital television service and channel authorizations,

prior purchases including television pay-per-view movies,

a viewer channel selection and an electronic program guide (EPG) display profiles, and

a viewer content filtering criteria, including VCHIP settings and ratings, wherein the VCHIP locks out programming based on program rating.

15. (currently amended) The method of claim [[19]]9, wherein the content matching process and the opportunity matching process are performed within the facilities, so that only a subset of the characteristics is retrieved from the facilities, and only a subset of the determination of the content and opportunity matching processes is returned without returning any of the characteristics.

16. (currently amended) The method of claim 1, wherein the content characteristics further comprise:

a maximum number of repetitions,

a minimum amount of time between showings,

a maximum number of incomplete repetitions,

a time window for usage,

technical requirements for usage of the content on the receiver,

a source or sources for the content, and

a sequence number for content consisting of multiple instances of content within a sequence.

17. (currently amended) The method of claim 13, wherein the version of content is selected ~~targeting opportunity is provided~~ in response to an invocation of a function on the receiver, the function being selected from one of

~~switching the receiver,~~

switching on and off the receiver,

starting and pausing a playback of stored content,

starting and stopping a communication session, and

pausing and resuming viewing of broadcast content through the use of time-delay storage features.

18. (previously presented) The method of claim 17, wherein the content targeting opportunity is provided in response to one of a plurality of advertising slots being available on a plurality of channels, the advertising slots being related for the purposes of sharing the advertising on each channel and for managing and targeting the advertising opportunities.

19. (previously presented) The method of claim 18, wherein the content targeting opportunity is provided in response to one of a plurality of advertising slots available on a single channel.

20. (currently amended) The method of claim [[19]]16, wherein the viewing opportunity and ~~selection of~~ content characteristics are based on a combination of ~~the exercising~~ informing the receiver of the content targeting opportunities,

the displayed version of content,

a frequency with which said content targeting opportunities are provided,

a time at which said content targeting opportunities are provided, and

a time separating the provision of said content targeting opportunities.

21. (previously presented) The method of claim 1, wherein the one or more networks include

a direct-to-home satellite broadcasting system (DTH),

a cable television network,

a terrestrial radio frequency network, including Local Multipoint Distribution System (LMDS) and Multichannel Multipoint Distribution System (MMDS),

a packet switched terrestrial network, including Asynchronous Transfer Mode (ATM) and

Digital Subscriber Line (DSL) networks,

a packet switched or routed networks including multiple channels on multiple streams of the transport layer, and ATM virtual circuits in all their embodiments, and Internet Protocol (IP) unicast or multicast streams,

a terrestrial cellular communication network, including telephone networks,

the public telephone network,

the Internet, through cable, a xDSL, a telephone, wireless or other broadband connection methods including MMDS and LMDS, a terrestrial television broadcast network, including National Television System Committee (NTSC), Advanced Television Systems Committee (ATSC), Digital Video Broadcast (DVB) and other protocols.

22. (previously presented) The method of claim 21, wherein a transmission protocol for transmitting the characteristics includes

Moving Picture Experts Group (MPEG) transport streams,

DVB transport streams,

vertical blanking interval or other portions of television signals allowing the carriage of data, including Advanced Television Enhancement Forum (ATVEF) transport A and transport B streams,

Transmission Control Protocol/Internet Protocol (TCP/IP) transport streams directly within the networks as defined within a specification selected from a DVB or any of the Internet Engineering Task Force (IETF) specifications, and

private data fields within a DVB Event Information Table (EIT).

23. (previously presented) The method of claim 22, wherein algorithms, processes and characteristics are represented as part of or extensions to specifications of one or more interactive applications and communication specifications, including ATVEF, DVB, Multimedia Home Platform (MHP), and Wireless Application Protocol (WAP).

24. (previously presented) The method of claim 1, wherein the receiver is selected from one of

a digital set-top cable or satellite television receiver,

a plurality of components within a television,

personal computers with appropriate network connections,

a cellular telephone or a personal digital assistants (PDA), and

a gaming console.

25. (currently amended) The method of claim 1, wherein the receiver handles multiple content streams simultaneously, allowing the acquisition of the characteristics and the versions of content simultaneously with the viewing of the versions of content.

26. (previously presented) The method of claim 1, wherein the receiver acquires the versions of content using viewing facilities when the receiver is not being used for viewing.

27. (previously presented) The method of claim 1, wherein the versions of content are selected from content on a plurality of services having synchronized start and end times of the content.

28. (previously presented) The method of claim 27, wherein the versions of content are further selected from streams of alternative content used by a plurality of services as a source of content alternatives, and the scheduling of the alternative content and the services allow for sharing of content among the plurality of services.

29. (previously presented) The method of claim 28 wherein a bandwidth is available from services which are not airing the content through simultaneous substitution requirements.

30. (previously presented) The method of claim 28 wherein a bandwidth is available from services which are temporarily off the air on a regular or occasional basis.

31. (previously presented) The method of claim 28, wherein the versions of content are available from a switched network including Digital Subscriber Line (xDSL).

32. (previously presented) The method of claim 28, wherein the versions of content are transmitted faster or slower than real-time, using methods other than the primary content transfer mechanism.

33. (currently amended) The method of claim 32, wherein the start point for switching to an alternative content stream is based on timing relative to a reference clock, the reference ~~relative~~ clock including

a time-of-day reference time stream available to the receiver, a Digital Video Broadcast (DVB), a time date table (TDT),

a Moving Picture Experts Group (MPEG) presentation time stamp (PTS), and

a MPEG display time stamp (DTS).

34. (previously presented) The method of claim 32, wherein the start point for switching to an alternative content stream is based on an amount of time elapsed from a detectable event in a video stream, the detectable event including a Dual Tone Multi-Frequency (DTMF) signal and other trigger mechanisms or data elements that are used as trigger mechanisms within analog or digital streams.

35. (previously presented) The method of claim 2, wherein the matching is based on geographical locations and the receiver's knowledge of its location based on technology for implementing black-outs within the receiver, through matching of content to each area within the black-out pattern.

36. (previously presented) The method of claim 1, wherein the viewer's inputs are recorded, reported and used to calculate a probability of which one of a plurality of viewers within a household was viewing the displayed version of content at a given time.

37. (previously presented) The methods of claim 1, wherein a level of detail of the reporting is based on a permission the viewer has agreed to, and the level is controlled within the receiver.

38. (previously presented) The method of claim 37, wherein the viewer's permission is obtained by one or more of

an agreement at the time of acquisition of the receiver by the viewer,

a reduction in the price of the service, a credit towards specific services, and

a direct payment to the viewer.

39. (previously presented) The method of claim 1, wherein the viewing of the versions of content is deemed uninterruptible, regardless of the action taken by the viewer on inputs to the receiver.

40. (previously presented) The method of claim 1, wherein indications that the version of content is being recorded or is scheduled to be recorded at a later time is used as a criteria for matching the version of content to the content targeting opportunity.

41. (withdrawn) A method for providing copy protection on the content being transmitted by using existing copy protection indicators and/or extensions to those indications to indicate one or more of the following restrictions are in place for the content:

- The receiver is not permitted to record the content to storage
- The receiver is permitted to hold only enough content in storage to allow a pause feature to be implemented. The pause feature may also include a limited amount of rewind time
- The receiver is permitted to record the content to storage, but only if encryption facilities are available. The encryption and subsequent decryption and playback, may require the facilities of the conditional access system.
- Limitations may be placed on the playback, including time limits and number of replays
- The receiver must include analog copy protection mechanisms within the video

signal to prevent recording on VCRs

- The ability to record and replay and the time limits and number of replays may be subject to permissions assigned by a conditional access system, or as part of rights acquired during the purchase of a pay-per-view event.

42. (withdrawn) The methods of claims 2, where the storage is a pool of storage available on any of the connected networks, and the content is managed in a manner that any specified piece of content is only stored once on the network, even though multiple users or the content selection methods for those users have requested storage of the content

43. (withdrawn) The method of claim 2, where the characteristics of content that is already stored can be updated by transmitting changes to the characteristics

44. (withdrawn) The method of claims 1, where multiple versions of interactive applications can be sent on and cached from one stream, and triggered after the service has been switched to an alternative content stream.

45. (withdrawn) The methods of claim 1, where the receiver can have the ability to handle multiple content streams simultaneously, and the facilities for handling a separate stream is used for tuning to or queing from storage the alternate content display to allow a seamless or near-seamless transition to and from the alternate stream.

46. (withdrawn) The methods of claim 1, where the content can be modified to accommodate delays in tuning to and returning from the alternate content selection. These modifications can include designing the content so that the start and end portions are less relevant and not significant to the message if missed; a temporal compression of the alternate content so that the start and end are blank or irrelevant for the amount of time it takes, and the message is shortened from its original length through accelerated playback or the removal of selected frames to fit within the shortened display time.

47. (withdrawn) The methods of claim 1, where the selection of the content alternatives, the selection and attribution of characteristics to opportunities and content, the transmission mechanisms selected for the content and opportunities, and the methods used for matching the content and opportunities can be based on yield management methods, an example of which is optimal dynamic pricing.

48. (currently amended) A method of informing a receiver connected to one or more broadcast networks of a content targeting opportunity and in response, the receiver selecting and displaying a version of content from a plurality of versions of content, the method comprising the steps of:

receiving and storing characteristics of a viewer, ~~a selection of~~ the content, and viewing opportunities;

determining which versions of content are physically accessible to the receiver and which versions of the content the receiver is permitted to access;

performing an opportunity matching process to determine which of the accessible and permitted versions of ~~the~~ content match the viewer, viewing opportunity and ~~selection of~~ content characteristics;

displaying the determined versions of content for viewing when the opportunity is received;

storing results of the viewing of the determined versions of content; and

reporting the results of the content viewing to a reporting facility.

49. (currently amended) A method of selecting and acquiring a version of content from a plurality of versions of content for subsequent targeted content viewing opportunities by a receiver connected to one or more broadcast networks, the method comprising the steps of:

receiving and storing characteristics of the viewer, ~~a selection of~~ the content, and viewing opportunities;

determining which versions of content are physically accessible to the receiver and which versions of the content the receiver is permitted to access;

performing a content matching process to determine which of the accessible and

permitted versions of ~~the~~ content best match the viewer, viewing opportunity and ~~selection of~~ content characteristics;

making sufficient space available on local storage; and

if permission is available to use the local storage accessible to the receiver with characteristics suitable for real-time playback with predictable content access latency characteristics;

acquiring and storing the content on the local storage.

50. (previously presented) A method for targeting of content presentation to individual users in a broadcast communications network including management and reporting of the content presentation, the method comprising the steps of:

receiving from content providers, a plurality of potential versions of content for presentation to users;

sending to a plurality of receivers operated by the individual users, a plurality of versions of content, content characteristics describing each of the versions of content, display opportunities describing when each of the versions of content is to be presented, and user characteristics describing users to whom each of the versions of content is to be presented; and

presenting to a user a version of content selected from said sent plurality of versions of content based on information known about said user.

51. (previously presented) A method for targeting of content presentation to individual users in a broadcast communications network including management and reporting of the targeted content presentation, the method comprising the steps of:

receiving from content providers, a plurality of potential versions of content for presentation to the users;

sending to a plurality of receivers operated by the individual users, a plurality of versions of content, content characteristics describing each of the versions of content, display opportunities describing when each of the versions of content is to be presented, and user characteristics describing users to whom each of the versions of content is to be presented;

receiving from a user, requests for viewing and other actions triggering the presentation

of said sent versions of content;

selecting, using information known about said user, said requests and said actions received from said user, versions of content from said sent versions of content to present to said user;

presenting to said user said selected versions of content; and

recording and reporting a fact that said versions of content were presented to said user.

52. (previously presented) A system for targeting of content presentation to individual users in a broadcast communications network including management and reporting of the content presentation, the system comprising:

means for receiving from content providers, a plurality of potential versions of content for presentation to users;

means for sending to a plurality of receivers operated by the individual users, a plurality of versions of content, content characteristics describing each of the versions of content, display opportunities describing when each of the versions of content is to be presented, and user characteristics describing users to whom each of the versions of content is to be presented; and

means for presenting to a user a version of content selected from said sent plurality of versions of content based on information known about said user.

53. (previously presented) A system for targeting of content presentation to individual users in a communications network including management and reporting of the targeted content presentation, the system comprising:

means for receiving from content providers, a plurality of potential versions of content for presentation to the users;

means for sending to a plurality of receivers operated by the individual users, a plurality of versions of content, content characteristics describing each of the versions of content, display opportunities describing when each of the versions of content is to be presented, and user characteristics describing users to whom each of the versions of content is to be presented;

means for receiving from a user, requests for viewing and other actions triggering the presentation of said sent versions of content;

means for selecting, using information known about said user, said requests and said actions received from said user, versions of content from said sent versions of content to present to said user;

means for presenting to said user said selected versions of content; and

means for recording and reporting the fact that said selected versions of content were presented to said user.